

Cracklin' Static

May 2022 Edition



SIERRA NEVADA
Amateur Radio Society

***In-Person* (donuts
and coffee 8 AM)
and Zoom Virtual
Meeting (9AM)
Sat May 7
See pg 4 and the
Prez Voice.....**

SNARS NET on DMR – Tuesdays 8pm
DMR Talk Group: 31328 SNARS

SNARS Treasury Closing Balances As of 5-1-22

Account	
Operating	\$9,637
Savings	\$10,599
Self Insurance	\$14,170
PayPal	\$2,718
Convention	\$4,212

Total **\$41,337**

Net Monthly **\$755**
Net YTD **-\$5,902**

Membership Renewals **24**

SNARS Membership as of

Extra	153	33%
General	129	28%
Technician	154	33%
Advanced	15	3%
No License	9	2%

Total **460**

SNARS ARRL Members

Regular	268	58%
Life	41	9%

PRESIDENT'S VOICE

President John Miller, N7JDM

Email: jmil912@gmail.com

Greetings to all! It's nice to see some nice weather for a change. Our volunteer tech crew will be planning to go forward with the long awaited repeater work now that the moisture has started to diminish. Hats off to them for their efforts, and I bet they would accept some help from time to time.



This month we'll have an in person meeting along with Zoom at the Washoe Co. Regional Law Enforcement Training Center, 5190 Spectrum BLVD. That's in the large building next to the REOC call center. There will be coffee and donuts available for a donation.

May will be a busy month for ham radio in the area, almost all of it on the same day! SNARS will have a tent at Fuji Park on the 14th for a 4X4 Offroad Show & Shine event, on the 21st there are at least 3 events, the Silver Striders 50 mile race on Peavine Mtn., Bob Miller and ARES has two events, the Stetina Paydirt bicycle race, and the Make a Wish Foundation Tahoe Rim Trail Walk, and lastly a joint ARES-CERT exercise. Anyone wanting to lend a hand to one of these events should contact SNARS or Bob Miller for more information.

That's about it, I hope that's enough for one month!

73, John N7JDM



PO BOX 7727 Reno NV 89510
Yearly Dues: \$40.00 Individual • \$50.00 Family
775.453.4142 <http://snars.org>

2022 Officers

President.....John Miller N7JDM
Vice-President.....John Byerly, N7ROJ
Treasurer.....Bill Jones, AE7OX
Secretary.....Anthony Marcin, W7XM
DirectorWes Vick, KG7QXE
DirectorJim Shepherd, W6US
DirectorBarry Bettman, K6ST

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KR7ENO Trustee..... Howie Holden, WB2AWQ
Control Operator Pat Sheehan, W7DED
Youth Involvement..... Barry Bettman K6ST
NVQSO Coordinator..... Jim Shepherd, W6US
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DMR Net Manager Anthony Marcin, W7XM
Reno Ham Swap Wes Vick, KG7QXE
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Recording Secretary..... Doug Edmondo, W7DBE

Cracklin Static Publication

Editor: Howie Holden WB2AWQ - holden7471@msn.com
Cracklin' Static is the Newsletter of, and sponsored by the Sierra Nevada Amateur Radio Society. Cracklin' Static is published the week before meetings. Opinions expressed herein are those of the editors and contributors and should not be considered as official expressions of the Club Officers, Staff or Club Members, or as endorsements by same.

Material for publication may be edited to enhance readability or to save space. We reserve the right to use whatever font size, line spacing or other tools as may be required to publish this Newsletter. **Deadline for input to the newsletter is 1500 hours on the Sunday** prior to the 1st Saturday (or whichever Saturday is the meeting) of each month.

SNARS Wide Area Linked System

147.030 + PL 123.0	Sparks, Fernley, Fallon	Online
147.210 + PL 100.0	Reno, Sparks	Online
147.150 + PL 123.0	Lake Tahoe, Truckee, Carson	Online
146.925 - PL 123.0	Lovelock, Fallon	Online
146.670 - PL 123.0	Winnemucca	Online
444.875 + PL 100.0	Yerington	Not Linked
444.125 + PL 123.0	Reno Sparks	Offline

DMR Systems

444.925 + CC 1	Reno, Sparks	Online
444.825 + CC 1	Dayton, Fallon, Carson	Online
443.925 + CC 1	Lake Tahoe, Truckee, Carson	Online
443.950 + CC 1	Incline Village	Offline
442.875 + CC 1	Sparks, Fernley, Fallon	Not Linked
442.850 + CC 1	Downtown Reno	Online
441.950 + CC 1	Fallon, Fernley	Offline

Fusion Systems

146.610 - PL 123.0	Reno, Carson, Dayton	Online
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IRLP / EchoLink Systems

147.300 + PL 123.0	Reno, Sparks	Online
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Packet / APRS

145.050 - RNO	Reno, Carson, Dayton	Online
145.050 - ROSE	Lake Tahoe, Truckee, Carson	Online
144.390 - TOULON	Lovelock, Fallon	Offline

Standalone Systems

147.390 + PL 100.0	Reno, Carson, Dayton	Online
443.075 + PL 123.0	Reno, Carson, Dayton	Online
927.0875 + PL 114.8	Reno, Carson, Dayton	Online

Online Offline Not Linked

NOTE: The status of repeaters may not up to date on this page. Check with the SNARS website for repeater status.

Weekday on the SNARS Linked System

147.030 + PL 123 – Sparks/Fernley
 147.150 + PL123.0 – Lake Tahoe / Truckee
 147.210 + PL 100.0 - Reno
 444.875 + PL 100.0 - Yerington
 146.925 - 123.0 – Lovelock / Fallon
 146.67 – PL 123.0 - Winnemucca

Monday through Friday @ 12:00pm

Open to all amateur radio operators. A general informational net for the amateur radio community of Northern Nevada and Eastern California. Radio Checks and Questions are welcomed.

Nets on the SNARS Linked Systems

147.210 + 100.0 | 147.030 + 123.0 | 147.150 + 123.0
 147.670 – 123.0 | 146.925 – 123.0 | 444.875 + 100.0

ERC Net for NV and Northern CA	Monday @ 9:15pm
N. Western NV ARES Net	Thursday at 7:30pm
Northern Nevada Preppers Net	Wednesday @ 8:00PM
Hospital Net	Friday @ 10:00AM

Nets on IRLP (GSR) System

Repeater: 147.300 + 123.0

Amateur Radio Newline	Monday - 8:00PM
Nevada Skywarn Net	Wednesday - 7:00pm

Nets on Simplex/HF

Jefferson Noon Net	7.204 LSB	Daily - 12:00pm
6 Meter Net	50.350 USB	Tuesday – 8:00pm
2 Meter Weak Signal	144.250 USB	Wednesday - 8:00PM
2 Meter Simplex Net	146.500 FM	Thursday – 8:00PM
10 Meter Net	28.350 USB	Sunday – 2:00PM

SNARS Weekly DMR Net – Tuesdays
8:00PM

SNARS Talk Group 31328

Open to Members and Guests. A general information net each week on DMR.

SNARS CALENDAR

SNARS Board Meeting Wednesday, May 11, 6:00PM.
 Location and mode Chin Chin, Sparks, and Zoom

4x4 Offroad: Show n Shine Saturday May 14, 10AM to 3 PM Casino Fandango in Carson City, NV (SNARS hosting A Technology booth)

QCWA Meeting Saturday, May 14, 11am – 1pm Famous Dave's Bar-B-Que, 4925 Kietzke Ln, Reno, NV

HAM RADIO NIGHT on Zoom 7:00 PM , May 16, 2022
 see <https://snars.org/hamradionight/>

Reno QRP Group Meeting Tue, May 17, 2022, 11am – 12pm Jack's Coffee Shop #2, 605 N Wells Ave, Reno, NV
 Contact Ed, WD7Y WD7Y@sbcglobal.net for more info.
 If cancellation is needed, will be announced on the SNARS noon net.

Next months SNARS Breakfast Meeting June 4, 8 AM 2022. Location and media mode tentative depending on Board decision.

WELCOME NEW MEMBERS

As of 4-30-22

Thomas	Denny	N0WVU
Jon	Stanovich-Rubalcava	KN6TVB
David	Moser	KK7FPQ
Steven	Braun	KK7FPL
Justin	Pope	KK7DBH
Becky	Brink	KE7CKY
Scott	Brink	KC7STV
Russell	Brown	KK7EMO
John	Schaap	KA6ELH
Seamus	Maloon	KK7EZH
Nicholas	Wilson	KJ7PQA
Leslie	Simerl	KI7OMV
Tom	Taormina	K5RC
Jason	Asbury	W1JAV
Lance	Cullen	KJ7NUJ

SNARS In-Person and Virtual Monthly Meeting

**SNARS (hybrid in-person & virtual zoom) Monthly Meeting
on Saturday May 7, 2022 8AM In-Person/9AM Meeting**

In-Person @ Regional Public Safety Training Center (5190 Spectrum Blvd, Reno) - or - join us via Zoom

In Person location (no registration, just show up)

Regional Public Safety Training Center
5190 Spectrum Blvd, Reno
Room 103 & 105

**Presentation:
Heil Sound Presentation
with Bob Heil, K9EID**



**MEETING
NOTICE!**

To join via Zoom, register here:

<https://us06web.zoom.us/join/register/tZctcuqogzkrE9Saz22-dyUNVH4qLtPUH8qp>

Questions? Contact Barry K6ST@arrl.net

**(NOTE: MEETING START TIME: 9AM, BUT COFFEE
and DONUTS START AT THE EOC AT 8 AM!)**

More Info In-Person / Register Zoom: <https://snars.org/monthly-meeting/>

THE NAME OF THE GAME

Jim Shepherd, W6US nvjims@gmail.com

TECHS ON THE AIR

10 meters has been open regularly, the 6 meter season is beginning, but there is something that is missing.... 4709 of the 8531 licensed hams in Nevada are Technicians and virtually NONE of them are getting on these two bands where they have privileges. During the WPX contest the last weekend in March, out of the 61 contacts I worked on 10 meters, there were no Technicians in my log... I didn't hear any being worked by other stations. Why are we failing on getting these newer hams on the air? (I could have used some KI7, KJ7, and KK7 calls for my log!)

SNARS has several radios capable of being used on 10 and 6 meters that are available for loan to members. (contact W6US at nvjims@gmail.com for training on using them) A number of 'old timers' also have some older radios gathering dust in storage that could be loaned to newer hams. The used market on the internet and some radio sites have lots of capable radios for very reasonable prices, and we will have a Ham Swap in May that will feature dozens of these radios... The equipment is available and relatively inexpensive as most of the HF radios built in the last 30 years have had 10 and 6 meter capability.

Antennas are easy to make and are very inexpensive. 16.25 feet of wire and enough coax to get to the operating position will make a good dipole on 10 meters and 9.5 feet of wire will do the job on 6 Meters. Cut those wires in half and hook one piece to the center conductor of the coax and the other half to the shield of the coax. Hang it up under the eaves of your house or between a couple of trees, and you are ready to operate. No need to buy premade wire antennas as these are too easy to build. Once you start making lots of contacts, 6 and 10 meter directional beams are relatively inexpensive and can be rotated with a low cost TV antenna rotor or with the 'armstrong' method... (manual turning of the antenna).



So what can you expect to work with this basic setup? 10 has regularly been open into South America and the Caribbean around mid day. Callsigns like ZF, PY, CO, CE, HK, LU, etc will be heard across the band from 28.300 to 28.497 (those are the legal dial frequencies for Technician SSB operators). Japan, Australia and New Zealand are also popping up on 10, and as the conditions keep improving, Europe and Africa will also start coming in. Quite a difference from catching an occasional California station on the Mt. Rose repeater.... For a list of callsign prefixes, go to <http://www.on4sh.be/ham/prefix.htm> You will quickly get a real education in world geography!

6 meters will get you contacts across the country. When the band opens you will hear a lot of stations in the Midwest and as conditions improve, the east coast, South America, and the Caribbean will be coming in... When it really opens up, Hawaii, Alaska and even Japan can show up. With a beam antenna, these distant areas are easier to get. One thing you will notice is that everyone will be giving out their grid zone. In the Reno area, we are in DM09 grid, and a lot of other hams will be happy with that grid along with a Nevada contact.



Besides SSB voice, all Technicians can use the digital modes in the appropriate areas on both the 10 and 6 meter bands. FT8 has been very popular on both of these bands and quickly will add a lot of countries and grid zones to your log. You will find that you are doing a little victory dance every time you work an ATNO (All Time New One) or at least it will put a big grin on your face!

Logging becomes more important as you and the ham on the other end of the contact, will want to confirm the contact with either a QSL card or electronically with Logbook of the World (LOTW). On 10 meters it will be easy to make it most of the way toward the DX Century Club award, during the WPX contest, I worked 27 countries out of the 61 contacts on 10 meters that weekend. 6 meters has the VUCC award for 100 or more grid zones and with FT8 that has become easier to achieve. There are some good free logging programs available that will let you upload the contacts to the Logbook of the World for conformation. The N1MM+ Contest logging program has a DX and VHF (6 meter) overlay that works for basic logging, but there are general purpose logging programs that also can capture more information.

Operating on these bands will really expand your fun with ham radio. Right now we are on the increasing side of the solar cycle which will increase the activity on 6 and 10. A handheld on repeaters is like a bicycle with training wheels---getting on these other bands with SSB and Digital modes is more like a good motorcycle, and it will make you want to upgrade your license so you can get on the rest of the HF bands.

Make use of your privileges and get on the air on 6 and 10 meter, you will like it!

MIKE'S MISSIVES CHAPTER SIXTY SIX

Mike Katz, N7MSK

Part 97: §97.315 Certification of external RF power amplifiers.

(a) Any external RF power amplifier (see §2.815 of the FCC Rules) manufactured or imported for use at an amateur radio station must be certificated for use in the amateur service in accordance with subpart J of part 2 of the FCC Rules. No amplifier capable of operation below 144 MHz may be constructed or modified by a non-amateur service licensee without a grant of certification from the FCC.

(b) The requirement of paragraph (a) does not apply if one or more of the following conditions are met:

(1) The amplifier is constructed or modified by an amateur radio operator for use at an amateur station.

(2) The amplifier was manufactured before April 28, 1978, and has been issued a marketing waiver by the FCC, or the amplifier was purchased before April 28, 1978, by an amateur radio operator for use at that operator's station.

(3) The amplifier is sold to an amateur radio operator or to a dealer, the amplifier is purchased in used condition by a dealer, or the amplifier is sold to an amateur radio operator for use at that operator's station.

(c) Any external RF power amplifier appearing in the Commission's database as certificated for use in the amateur service may be marketed for use in the amateur service.

SHORT TAKES (By Jim Shepherd W6US)

CONTEST CALENDAR

The big weekend this month is this coming one. On Saturday, May 7 from 0600 until 2400 local time, is the 7QP. See more info in another article in the newsletter. Running concurrently with the 7QP is the New England QSO Party, the Indiana QSO Party and the Delaware Party. If you are calling CQ and running, end you CQ with your callsign every time. The Canadian Prairies QSO is May 14 for the providences of Alberta, Manitoba, and Saskatchewan. Finally, the last state QSO party for the month will be on May 21 for Arkansas. The CW part of the WPX contest is May 28-29. These and other contests information can be found at <https://www.contestcalendar.com/contestcal.html>

DX

The warmer weather is helping operations to pick up. New Caledonia, Namibia, Galapagos, and Maldives are just some of the many DX operations this month. South America on 10 meters has been excellent and all hams can work 10M DX... More information can be found at <https://www.ng3k.com/Misc/adxo.html>

THIRD MONDAY ZOOM HAM RADIO NIGHT

We will have our popular Ham Radio Nights via ZOOM to get your questions answered. It will be held at 7pm on Monday, May 16th. More information, including the link will be published before that date.

NAME THAT RIG?

(Answer on page 13)



THE COMSTOCK MEMORIAL STATION, INC.

A NEVADA 501C3 NOT FOR PROFIT CLUB

W7RN K7RC

A UNIQUE INVITATION FOR SNARS MEMBERS

Regardless of your license grade, there is a unique gamut of challenges and experiences in the world of HF Radio. The spectrum from 1.8 to 30 MHz will open a new world to you that is affordable and practical for most Hams. This series of hands-on interactive workshops is offered to those who have not yet experienced HF and for those who are interested in learning the possibilities available on HF.

INTRODUCTION TO HF WORKSHOP

An overview of radios, antennas, propagation modes and on-the-air activities. Concentrations on topics requested by attendees. Opportunities to “get on the air” from the Comstock Memorial Station (AKA CMS) in Virginia City Highlands. **(Closed. Held Feb 19.)**

INTRODUCTION TO HF ANTENNAS WORKSHOP

All about antenna design, fabrication, and installation from a wire in the trees to Yagis and beyond. Concentrations on topics requested by attendees. Opportunities to “get on the air” From the Comstock Memorial Station. **(Closed. Held March 12.)**

INTRODUCTION TO HF EQUIPMENT WORKSHOP

An overview of radios, antennas, propagation modes and on-the-air activities. Concentrations on topics requested by attendees. Opportunities to “get on the air” from the Comstock Memorial Station. **(Closed. Held May xx.)**

INTRODUCTION TO DX, CONTESTING AND OTHER FUN ACTIVITIES

An overview of many of the activities available on-the air on HF. Concentrations on topics requested by attendees. Opportunities to “get on the air” from the Comstock Memorial Station in Virginia City Highlands. **(Open for registration.)**

Each Workshop is limited to 8 people. Face masks are required. Please wear Your SARS nametag. There is no particular time limit for each workshop.

THE CHARTER OF THE CMS is to advance the art of Radiosport, to train new operators and provide a venue for highly motivated hams to advance their operating skills. Since the Pandemic, most on-site activities are limited. W7RN maintains three remote hosts to allow challenged hams to access the station from the Internet. www.w7rn.com

See <https://snars.org/intro-to-hf/> for more info, signup sheets

YOUTH INVOLVEMENT

KIDS MIDDLE SEVEN SPRING CREEK

Last month in this Youth Column, we had an article introducing the Spring Creek Middle School ham radio club. Since then, they made more progress and received a club call:

KM7SC which represents Kids Middle Seven Spring Creek



Kami K7SY (Math Teacher) at Spring Creek Middle School

One of the teachers Kami (and is a ham too K7SY) at the middle school in Spring Creek, NV in the Elko area is active with over 2 dozen students daily for a 30-minute homeroom daily. The teacher (Kami K7SY) is orienting the youth to introduce amateur radio. For the next school year, they are planning to bring ham radio curriculum as a regular school course.



KM7SC "Spring Creek Middle School Amateur Radio Club" station

What do I need to know to talk to my local school about Amateur Radio?

The most frequently asked question about ARRL's Education & Technology Program (ETP) is "How do I approach a school to introduce Amateur Radio curriculum and convince them to consider including the curriculum as part of their school program?" This question comes from hams outside the educational system who would like to see Amateur Radio included as an accepted program in their local schools.

As Ham Radio operators, we recognize the numerous benefits from including Amateur Radio as an enrichment program in schools. We are aware of the relationship between the knowledge base of our hobby and the concepts in science, math, geography and other subject matter taught in schools. We have observed how the use of Amateur Radio can improve young people's verbal and social skills. We are familiar with the sense of accomplishment gained by passing an FCC exam and operating on the air.

To be successful you'll need to be informed about the resources ARRL offers through our Education & Technology Program. You'll also want to know what teachers are doing in their classrooms to use amateur radio as an instructional tool. It would also be good to have some knowledge of what other local ham radio clubs are doing with their local schools.

Spend some time reading the information provided through the links:

<http://www.arrl.org/outreach-to-teachers-and-schools>

Any questions about supporting the youth, contact Barry K6ST - k6st@arrl.net

ARRL Nevada Section Youth Coordinator

NEW FCC APPLICATION FEE WILL NOT APPLY TO AMATEUR RADIO LICENSE UPGRADES

04/04/2022

The Federal Communications Commission (FCC) staff has clarified in response to an ARRL request that the new \$35 application fee will not apply to most license modifications, including those to upgrade an amateur radio licensee's operator class and changes to club station trustees. The FCC staff explained that the new fees will apply only to applications for a new license, renewal, rule waiver, or a new vanity call sign. As previously announced, the new fees take effect on April 19, 2022.

"We are pleased that the FCC will not charge licensees the FCC application fee for license upgrade applications," said ARRL Volunteer Examiner Coordinator (VEC) Manager Maria Somma, AB1FM. "While applicants for a new license will need to pay the \$35 FCC application fee, there will be no FCC charge for future upgrades and administrative updates, such as a change of mailing or email address. Most current licensees, therefore, will not be charged the new FCC application fee until they renew their license or apply for a new vanity call sign."

ARRL previously **reported** that the new \$35 application fee for amateur radio licenses will become effective on April 19, 2022. Further information and instructions about the FCC Application Fee are available from the ARRL VEC at www.arrl.org/fcc-application-fee.

THE MOST IMPORTANT HAMFEST....



Saturday, May 21, 2022

Cabela's – East Parking Lot
8650 Boomtown Garson Road, Reno, NV

Seller Setup @7:00AM

\$10.00 Per Space

Open to Public @8:00AM

Free to Browse and Buy

Cabelas Opens @ 9AM

Shop the Famous Cabala's

Raffle Drawing @ 10AM

HT Radios and More



An ARRL Sanctioned Hamfest

Talk-In Frequency 147.210 + PL 100.0
DMR Talk Group: SNARS 31328

RenoHamSwap.com

Brought to you by the Sierra Nevada Amateur Radio Society – <http://snars.org>

Thanks to Tony Marcin W7XM and Jim Shepherd W6US for info on hamfests!

ARES NEWS

EVENTS CALENDAR

EVENT 2022	DATE	DATE END	SPONSOR/ORGANIZER	COORDINATOR	CONTACT
Silver State 50/50 race	5/21/22		Silver State Striders	Steve KS6A	ks6a@sbcglobal.net
Trailblazer Challenge (First event)	5/21/22		Make-A-Wish Foundation	Arlan Robinson KA7ZAU	ka7zau@yahoo.com
Stetina Paydirt	5/21/22		John Prouty; Bike Monkey	Bob Miller WA6MTY	wa6mtty@gbis.com
Trailblazer Challenge (Second event)	6/11/22		Make-A-Wish Foundation	Arlan Robinson KA7ZAU	ka7zau@yahoo.com
Truckee Dirt Fondo Bike Ride	6/11/22		John Prouty; Bike Monkey	Bob Miller WA6MTY	wa6mtty@gbis.com
Indian Valley Century Bicycle Ride	TBD		Plumas Amateur Radio Ops	Larry Trotter KI6YUK	dltrotter@sbcglobal.net
America's Most Beautiful Bike Ride	6/5/22		Tahoe Amateur Radio Assn	Paul Gulbro, WA6EWW	wa6eww@juno.com
Pony Express Re-Ride	6/6/2022	6/16/22	SIERA	Jeff Cauhape K7BCV	j_cauhape@yahoo.com
Alta Alpina Challenge	6/25/22		Alta Alpina Cycling Club	Jennie Hamiter, KE7YBA	jenniehamiter@mac.com
Running With the Bears	TBD		Plumas Amateur Radio Ops	Larry Trotter KI6YUK	dltrotter@sbcglobal.net
Bear Grawl Gravel Grinder	TBD		Plumas Amateur Radio Ops	KJ6CUG	dltrotter@sbcglobal.net
Lost and Found Gravel Grinder SBTS	6/22/22		Plumas Amateur Radio Ops	Larry Trotter KI6YUK	dltrotter@sbcglobal.net
Tahoe Rim Trail	7/15/22	7/17/22	Tahoe Mountain Milers	Bob Miller WA6MTY	wa6mtty@gbis.com
Death Ride	7/16/22		Tahoe Amateur Radio Assn	Paul Gulbro, WA6EWW	wa6eww@juno.com
Vegas to Reno Off Road Race	9/10/22	9/12/22	Best in the Desert Racing Assn	Keith KC7HTK	kc7htkeith@hotmail.com
Tour De Tahoe	9/11/22		Tahoe Amateur Radio Assn	Paul Gulbro, WA6EWW	wa6eww@juno.com
Reno Air-Races	9/14/22	9/18/22	WC-ARES	Bob Miller WA6MTY	wa6mtty@gbis.com
Grinduro SBTS	TBD		Plumas Amateur Radio Ops	Larry Trotter KI6YUK	dltrotter@sbcglobal.net
Nevada Day Parade	10/29/22		NV AREA NW DEC	John Abrott KD7NHC	jabrott77@gmail.com
Sparks Turkey Trot	11/24/22		WC-ARES	Bob Miller WA6MTY	wa6mtty@gbis.com

NOTE: Plumas ARC always have a need for operators. Go over to some beautiful country and help out the Plumas Amateur Radio Club



STETINA PAYDIRT

May 21 is the **STETINA PAYDIRT** offroad gravel racing in Carson City.

MAP [Paydirt Long Course | 100.7 km Road Cycling Route on Strava](#)

There are 4 Aid Stations and one Water Station

Aid 1 Sedge Rd, **Aid 2** Brunswick Canyon, **Aid 3** Johnson Lane, **Aid 4** Genoa, **Water Station** Golf Club Dr (Accessible by Gravel Mtn Bike only).

Also need SAG Wagons:

SAGs should have room for perhaps an accompanying EMT or in the case of a non-ham driver, a radio operator in addition to room for two or more cyclists. They should be equipped with a means for carrying two or more gravel or mountain bikes, either hitch rack or roof rack is advised.

SAGs will flow with riders, in some cases they may need to go against the flow to address issues upstream. Most will probably be on course for most of the ride.

Reimbursement:

HAM SAGs will be able to apply for mileage at the non-profit/volunteer rate of 0.14/mile (as of this writing) and either receive a check or can have it donated to WCARES.

NON-HAM SAGS will be provided a \$100 stipend for the day, but no mileage. They may also elect to donate to WCARES in lieu of receiving it.

Also looking for Ride-A-Long mobile operators to ride with any SAGs that are NOT Ham Operators to provide communications.

If you want to help with this event, contact Bob WA6MTY at wa6mtty@gbis.com 775 843-5952

TRAIL BLAZE CHALLENGE

Also on May 21 is the Make-A-Wish Trailblaze Challenge who needs communications from 4 Aid Stations to the Finish line for emergency communications. A walk from Spooner Summit down to Kingsbury Trailhead.

MAP: [MapBroch_SS to KBS 20.indd \(tahoerimtrail.org\)](#)

If you want to help with this event, contact Arlan KA7ZAU ka7zau@yahoo.com 775 233-3530

(ARES NEWS CONTINUED ON NEXT PAGE)

ARES NEWS (continued from previous page)

RADIO AMATEURS TO PARTICIPATE IN MARS INTEROPERABILITY EXERCISE IN MAY

04/29/2022

Members of the Military Auxiliary Radio System (MARS) will conduct an HF skills exercise from Monday night, May 2 through Saturday, May 7, 2022 to practice interoperability with the amateur radio community.

A 60-meter high-power broadcast will begin on May 3 at 0200 UTC followed by the FEMA region net. That will continue four more nights at 0200 UTC with the region net. At 1200 local each day (May 3 – 7; Eastern, Central, Mountain, and Pacific) the net will be called by region. See slide (PDF).

MARS members will be reaching out to the amateur radio community via the 60-meters Channel 1 Net (5330.5 kHz). These are directed nets. The nets will be run by region. These are not typical "everyone check into the net" operations. Amateur ops who participate should listen first. Net control will ask for stations meeting specific criteria to check in, e.g., stations in a particular geographic area. Only stations that meet the criteria should check into the net.

In addition to 60 meters, MARS stations will also reach out on amateur frequencies such as 80-meter traffic nets and other bands they may be able to reach.

John Abrott KD7NHC

Nevada ARES Section Emergency Coordinator

Nevada State RACES Officer

ARRL OES

775 790-1739

Bob Miller WA6MTY

Emergency Coordinator for Washoe County
Amateur Radio Emergency Service

775 843-5952

www.wcares.us wa6mty@gbis.com

SNARS NEED SYOUR HELP! (Submitted by Jim Shepherd W6US)

GRANT WRITER NEEDED

SNARS is in the process of rebuilding their repeater system. The existing equipment was new about 40 years ago and needs replacement. There are opportunities to get grants to help purchase the new equipment, but we need someone who is familiar with procedures of applying for these grants. They would have to be able to acquire the sponsor's requirements, coordinate with our Board of Directors, and write the necessary documents in the correct format for submission to the sponsor. Past experience applying for grants in any industry or academic setting is needed for this position. This is like all the other staff positions for SNARS, an unpaid position, but expenses like letterhead and postage will be reimbursed. If you are interested, please contact the SNARS Board via snars@snars.org.

FIELD DAY

It will be here before we know it. June 24-26 will be the days that we will be down at Washoe Lake State Park in the main group area by the boat launch. We need help with the kitchen operations, logistics, set-up and demobilization, IT gurus, greeters, PIOs, a safety officer, and most importantly, operators who will work the 10pm to 6am shift on the radios... We will have 7 stations again, 2 for CW, 2 for HF digital, and 3 for HF Voice. We can have a potential station for weak signal VHF/UHF/Satellites if someone is interested. Contact Jim Shepherd at nvjims@gmail.com if you want to help put this event on. We will be discussing this at the Ham Radio Night Zoom meeting on May 16th at 7 pm.

7QP CONTEST

This is a great warm-up for the Nevada QSO party in October. All the world will be trying to contact stations in Washington, Idaho, Montana, Wyoming, Utah, Oregon, Arizona and NEVADA!!!! It starts at 0600 Saturday morning and runs 'til midnight. The exchange is simple, a '59' signal report followed by the two digit state abbreviation and the 3 digit county abbreviation. If you are in Washoe County that would be "59 NVWAS". When using voice modes, the standard phonetics are best as most of the world doesn't know the proper abbreviations. While it will be a nice weekend to go camping out in the middle of the state, operating from home has great advantages. The big thing is to Get On The Air so there are lots of Nevada stations for the world to work. There is a Planned Activations page on the 7QP website and please send the email listed letting them know where you will be. Be sure to log your contacts and send in a log after the contest. For the full rules and other helpful information, you can go to their website at <http://ws7n.net/7qp/new/Page.asp?Content=start>

HAMS AND OFFROADING: A PERFECT COMBINATION!

SNARS DEMONSTRATION PAVILION at

4x4 Offroad: Show n Shine (5-14-2022) event @ Casino Fandango in Carson City, NV

SNARS will have our pavilion to introduce ham radio to the approximate 500 attendees at the Show N Shine. The event will be on the top floor of the Casino Fandango parking garage with direct access from South Curry St in Carson City. The show opens Saturday, May 14, 2022 to the public at 10am and goes till 3p, setting up at 8:30a and tear down after 3p.

If you would like to help out with SNARS with ham radio, please fill out the form below.

https://docs.google.com/forms/d/e/1FAIpQLScMiinaKXHVipfyCUqHR4bDc4Nrjr2Nhhv9a_tkntHLvjgBUKQ/viewform

Hams and offroading – a perfect combination

Hams and offroading go together like Trails and Mud. Offroaders need to stay in touch when adventuring in remote areas and the hams at home love to talk and help out when someone is in trouble. It's a match made in heaven or at least at 2 meters!

775 Offroad and Recovery is hosting a 4x4 Offroad Show N' Shine on May 14th from 10am to 3pm on the top level of the Casino Fandango parking garage in Carson City. The event will bring hams and offroaders together. Lots of offroaders have their ham license but are still using analog technology, poorly matched antennas, and weak handhelds. SNARS can help move them into the modern digital era.

SNARS has agreed to host a booth at the **May 14th Show N' Shine** to show off the latest technology and demonstrate how to use it. **But this can only happen with the help of volunteers.** We need a few folks - hopefully some with cool 4x4s with ham radios installed- to demonstrate the ham technology. It would also be great to have someone bring a portable base station to demonstrate that literally the whole world is available to help if we find ourselves in a pickle! To entice volunteers, **775 Offroad and Recovery will waive the event entrance fee for the first 2 SNARS members with 4x4s equipped with a mobile ham radio (one that still leaves room in the vehicle to bring a passenger and recovery gear! J) that are willing to volunteer at the SNARS booth.**

If you have any questions about the SNARS ham radio demonstration please contact K6ST Barry Bettman k6st@arri.net If you have questions about the Show N' Shine go to www.775ofr.com or contact Rita Heidkamp WL7CQW srheid@usa.net, the Show N' Shine event coordinator.

4x4 OFFROAD Show N Shine!

MAY 14 – FREE ADMISSION

CASINO FANDANGO, S. Curry St, Carson City
Top Level of Parking Garage (direct St access, No clearance issues)
Show opens at 10am – Winners announced at 2pm



CATEGORIES

- Best in Show
- People's Choice
- Muddiest Rig
- Best Frankenstein
- Oldest 4x4
- Best Vanity Plate
- Best SxS
- Ugliest Sh#tbox

REGISTER

YOUR RIG
At 775OFR.COM
\$10-Pre-Reg
\$20 after May 9

VENDORS

Register at
At 775OFR.COM

FUN FOR ALL

- Recovery Demos
- RC Rock Crawl
- Vendors
- Door Prizes
- Raffles
- Food Available
- Music

Pre-Event Rides by Battle Born Offroaders, Wild West Jeeps and Sierra Wheelers



Sponsors: TireMaxx Car Care, Trail Trust–A Fox Factory Initiative

All proceeds support 775 OFFROAD and RECOVERY

More info about the 4x4 Offroad: Show n Shine event <https://www.775ofr.com/>

FUN STUFF FOR MAY

There are **NO** ARRL or NCJ sponsored contests in May, but there **ARE** no less than **SIX** state, Canadian province, or state group parties: Our own 7QP, Indiana, Delaware, New England, Canadian Prairies, and Arkansas! Have fun!

7 May 0001 to 8 May 2359 28 10-10 International Spring Contest, CW www.ten-ten.org

7 May 1300 to 8 May 0700 1.8-28 7th Call Area QSO Party CW Ph Dig www.7qp.org

7 May 1500 to 8 May 0300 1.8-28 Indiana QSO Party Ph CW www.hdxcc.org/inqp/rules.html

7 May 1700 to 8 May 2359 1.8-VHF Delaware QSO Party CW Ph Dig www.fsarc.org/qsoparty/rules.htm

7 May 2000 to 8 May 2359 3.5-28 New England QSO Party CW Ph Dig www.neqp.org/rules

14 May 1200 to 15 May 1159 1.8-28 CQ-M International DX Contest CW Ph www.cqm.srr.ru/en-rules

14 May 1700 to 15 May 0300 7-28 Canadian Prairies QSO Party CW Ph www.cqpq.ve6hams.ca

21 May 0800 to 21 May 1959 3.5-28 YOTA Contest CW Ph RS(T) age www.ham-yota.com/contest

21 May 1400 to 22 May 0200 1.8-144 Arkansas QSO Party CW Ph Dig www.arkqp.com

25 May 0000 to 25 May 0200 1.8-50 SKCC Sprint CW www.skccgroup.com

28 May 0000 to 29 May 2359 1.8-28 CQ WW WPX Contest, CW www.cqwpw.com

Check out the rest here:

<http://www.arri.org/files/file/Contest%20Corral/2022/May%202022%20Corral.pdf>

If you're not into contests, there's always DX to chase! Some good catches this month! Here's a few of the better ones:

May 01 to Jun 15	Namibia	V5
May 01 to May 05	Svalbard	JW9DSA
May 02 to May 06	Azerbaijan	4K7DK
May 03 to May 16	Andaman Is	VU4W
May 04 to May 08	Galapagos	HD8FG
May 05 to May 11	New Caledonia	FK
May 22 to Jun 08	Gambia	C5C

Check <https://www.ng3k.com/Misc/adxo.html> for updates on DXpe-ditions to make sure they're still a go and see other listings!

RENO QRP SLOW SPEED CW NET

NEXT NET SESSIONS (two of them) WILL BE May 13 and 26, at 10 AM Pacific. Check with WD7Y@sbcglobal.net to confirm times. Target frequency 7.045 MHz, if busy search somewhere near that frequency.

THE FOLLOWING SHOULD ALWAYS BE IN YOUR REPORT:

NAME, RST, LOCATION, RIG, POWER, ANTENNA.

REMEMBER TO INCLUDE RST IN YOUR REPORT

Feel free to add something else in your exchange.

Take some time to report RST for other OP's or anything else that

comes to mind.

Sharing information about you and your equipment will accomplish two things.

First It gives you and everybody else practice sending and copying.

Second It is nice to spend time on the air with your friends. Consider this a QRP meeting on the air.

Relax and have some airtime fun with your friends.

73/72 Ed/WD7Y

NAME THAT RIG (from page 6)

Many transmitters and receivers used by the armed forces of the US and other countries up through World War 2 did not have direct frequency readout. Instead the most common method of frequency control was a logging scale, covering 0 to 1000 (other variations existed), and one or more band selection ranges. In particular, the receiver models RBA, RBB, RBC, RAK, RAL (and more), and transmitters TBW, GO series, TBL, TBM, TDE, (and more) used logging scales. Many that had direct frequency readout also could not be set to a particular frequency without some help, like the BC-348 or Command series – often mistakenly called ARC-5s - of receivers and transmitters. Enter the **Navy LM Heterodyne Frequency Meter**, and its **Army** counterpart, the **BC-221** shown below with the calibration book. These meters were designed in 1941, and produced in the many thousands through WW2 and beyond. There were no less than 24 versions of the **LM**, and 25 of the **BC-221**, the differences being in the type of power supply used, control layout, and, in the case of the **BC-221**, the cabinet could be made of either wood or metal. The **L**M's were numbered **LM** (no number), and from **LM-1** to **LM-22**, while the **BC-221** was labeled **BC-221** (no letter), and from **BC-221A** through **BC-221AK**. Both units were similar in operation and circuitry, although the tubes were different between the two. Each used three tubes, all low power. All **LM** units also had a 500Hz modulator, while only a couple BC221s did. Each unit covered from either 125-250Khz or 200-400Khz, and 2Mhz to 4Mhz, with high precision repeatable dials with individual 1Khz logging points. Each unit was individually calibrated by a sophisticated machine (for WW2) for each 1Khz frequency in the ranges, whose results were tabulated in a serialized book accompanying each unit. The repeatability and accuracy for any **LM** or **BC221** was on the order of 250Hz, unheard of for that time, and still usable today if one allows for the potential error. Either unit could produce an accurate frequency marker, or could accurately read the frequency of a transmitter, and they were simple to use. Each came also with a 1 Mhz crystal marker oscillator, whose harmonics and beats with frequencies generated in the units were accurately known and used to field calibrate the units. Any armed forces unit which had radio equipment had either **L**M's or **BC-221**s, usually in significant quantities, to keep (and lock) radios on a given frequency. Thousands of **L**M's and **BC-221**s are still in use today, some with the original books, some without, but all are capable of accurately determining band edges, or setting a given receiver frequency or reading a transmitter frequency.



W7SSB's FUN STUFF

THE NVIS ANTENNA: FACT OR FICTION

Near Vertical Incidence Skywave (NVIS)

Many hams have asked me what an NVIS antenna is and how it works! First off it ISN'T a DX Antenna! The use of these antennas seem to originate during WWII with the British. Most of the communications (radios) used by the British were HF. The US also used HF but had many radios in the VHF space.

NVIS is an ionospheric skip operating technique that directs the strongest signals from a station vertically, or upward, rather than toward the horizon. Signals propagating nearly vertically approach the ionosphere with steep incidence angles and may be bent back to earth with similarly small angles. The operational result is skip communications effective within a radius of a few hundred miles. The NVIS technique can help to bridge the communications gap between the local range of VHF/UHF repeater or simplex communications and the longer distance skip of low-to-the-horizon HF signal propagation.

The most reliable frequencies for NVIS communications are between 1.8 MHz and 8 MHz. Above 8 MHz, the probability of success begins to decrease, dropping to near zero at 30 MHz. Usable frequencies are dictated by local ionospheric conditions, which have a strong systematic dependence on geographical location.

GREAT EDUCATION VIDEO ON NVIS OPERATION!

https://www.youtube.com/watch?v=k3IFj_Z5cLM

Great portable NVIS setup:

<https://www.youtube.com/watch?v=KQJw9j-moEg>



The US Military has used the AS-2259 NVIS antenna system for years. Great information site for use of NVIS antennas in ARES service.

https://www.idahoares.info/tutorial_hf_nv_is_band_selection.php

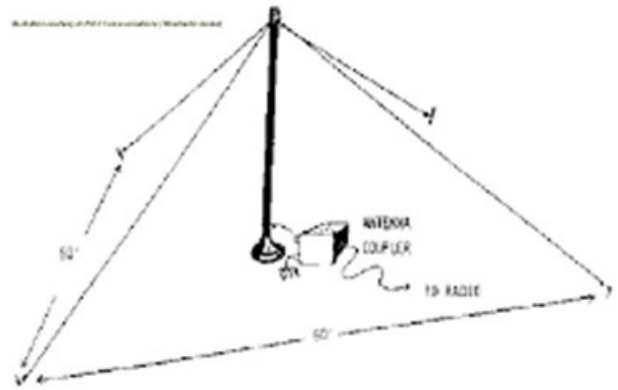
Comms Prepper video on the installation of the AS-2259 NVIS antenna.

<https://www.youtube.com/watch?v=aAshymGZ8Ww>

DX Engineering NVIS antenna package

<https://static.dxengineering.com/pdf/wp-nvis-rev2.pdf>

NVIS – The AS2259 or 'Collins' Antenna



WAVETALKERS <https://wavetalkers.com/>

WaveTalkers' mission is to help you learn to become a more effective communicator in any medium.

<https://www.youtube.com/watch?v=8LR3ZU9w03g> Great video of the recent Baker to Vegas race using Chameleon Antenna and Buddipole products in very windy Death Valley conditions.

MARS (MILITARY AFFILIATE RADIO SYSTEM)

What is it and what do they do

The Army Amateur Radio System was **formed in 1925** to provide a pool of trained radio operators to augment the Signal Corps during mobilization in time of war and provide an extension of the Signal Corps' radio network to support civil authority with natural disaster relief efforts.

Purpose: To provide contingency communications

Formation: November 1925; 96 years ago



https://www.youtube.com/watch?v=9o_PRKBF8Tw Great video!

https://www.youtube.com/watch?v=Ypx0iaVPe_8



Typical MARS station during the Vietnam War.

Till next month - Stay Tuned !

Don W7SSB

PHOTOS FROM THE ARRL ROOKIE ROUNDUP AT W7RN

A couple of photos and memories from Rookie Round-up (hams licensed < 3 years) hosted by Tom Taormina, K5RC, on 10 April 2022 at the Comstock Memorial Station, W7RN. Together with two other rookies, Garrett, KK7COH, and Santiago, W7RPD, we made several point-earning contacts with other rookies working multiple HF bands. Memorable moments included watching Tom T's eyes roll back as we breached on-air etiquette time after time as newbies (shades of teaching your 16y/o to drive stick!) and lots of robust "73's!" after logging in our contacts with one unforgettable "88!" salutation to a very surprised contact (the offending call sign withheld by request.) A good time was had by all.

Tom Resk, KJ7TKR (Two photos here courtesy of Tom KJ7TKR)



"Great experience all around! The only way to become comfortable and proficient on the air is through making several contacts, and in this case being mentored along the way in what and how to communicate. The Rookie Roundup at W7RN gave me the confidence boost I needed to operate my own home base station and I'm itching to get back on the air!" - Garrett Olson, KK7COH

73, Garrett Olson, KK7COH

Call Used	Station Call	Category	Location	Call Area
W7RN	W7RN	Multi-Op	NV	W7

Op Call	First Licensed	Entrant Type
KK7COH	2022	Rookie
KJ7TKR	2022	Rookie
W7RPD	2021	Rookie

Score Calculation:

QSOs		Multipliers				
Rookie	Non-Rookie	States	VE Prov/Ter	XE Areas	DX	
7	22	18	1	0	0	
QSO Points		Total Multipliers				Total Score
(14 + 22)		x	19			= 684

Computer screen shot with SNARS RR entrants courtesy of Tom K5RC

PHOTOS FROM THE HAM AND HIFI OPEN HOUSE IN SPARKS 4-2-22



Good crowd after the SNARS meeting!



Lots of goodies extremely well priced!



Wes KG7QXE snagged a neat set of headphones.



A cleverly disguised HT rubber duck? No, it's a cruller!

Submitted by Don Sherman, W7SSB

HAM RADIO NIGHT

3rd Monday of each month at 7PM PT on Zoom
Join together and Elmer each other for Ham Radio Night on
MONDAY, MAY 16, 2022, 7PM

The topic smaller breakout groups will be:

Field Day **Analog VHF/UHF** **DMR/Fusion** **DIY Projects**

Each participant can move themselves around to different breakout topics in zoom conferencing to enjoy.

If you have any questions or would like to be of service as an Elmer, please contact K6ST Barry k6st@arrl.net



Register below for our next Ham Radio Tech Night, SNARS (virtual on Zoom conferencing) May 16, 2022, 7:00PM PST
<https://us06web.zoom.us/meeting/register/tZlqcuGuqDstHdHn3QNMQqguT1tse4qj9Hqu>



Board of Directors Meeting Agenda

April 13, 2022 - Approx 6:00PM

At Chin Chin plus Zoom

1. Call to order and roll call at 6:00 PM

Board of Directors:

Anthony Marcin, W7XM	NP	Barry Bettman, K6ST	NP	John Miller, N7JDM	P
Bill Jones, AE7OX	P	John Byerly, N7ROJ	P	Wes Vick, KG7QXE	P
Jim Shepherd, W6US	P	Doug Edmondo, W7DBE	P		

(Scribe)

Guest(s) In attendance:

2. Approval of Minutes - Discussion/Action

The board approved the March 2022 meeting minutes.

3. Approval of Agenda - Discussion/Action

The board approved the April agenda.

4. Reports

A. President's Report – Good meeting at the Hotel and the food was decent. John commented that the Hotel staff was doing double duty! Need to work with them to reduce costs.

B. Secretary Report – No report this month

C. Treasurer – March 2022 End of Month, Operating: \$9,637, Savings: \$10,599, Self Insurance: \$14,170, Paypal: \$2,718, Convention: \$4,212. Net Monthly \$755, net YTD: (\$5,902). Memberships 25, Donations year to date \$2,715 (Amazon \$53, Members \$2,637, Paypal \$25)

D. Technical Team – Pat / John

Repeater Upgrade – Getting everything ready so that when there is access work can start on Toulon and Virginia Peak. Still working with GSR to get access to the roof – John B. is ready once they allow access. Noted that the UHF repeater on Peavine is owned by the NARI group and not SNARS.

E. Control Operators / Trustee

No report

F. Events

1. 7QP plaques – Jim; the plaques have been ordered including the expedition plaques.
2. Field Day – Jim; Getting ready to start logistics and will be soliciting team members
3. NVQSO publications – Jim; Noted they are dropping FT-4 and FT-8 due to lack of participation. Working with the folks

G. Education & Youth Activities

Bob Heil, K9EID of Heil Sound is our featured guest speaker for our May club meeting

H. Noon Net - Noon Net Manager

Training back up net control operators

5. Old Business

- A. In Person Meetings – John M. Still considering other options
- B. Card or letter to county for donated equipment – John M. Waiting on John Bierly who is in contact with the county
- C. Club Swag; Inventory and suppliers / pricing – Very little inventory remains, assume we are starting from scratch. Board discussed quality and approach of clothing items, John M. working on pricing.

6. New Business

- A. 4x4 off-road Show N Shine (Carson City) Sat May 14th, approximately 500 attendees. The board noted that we will support this.
- B. Membership Appreciation Picnic, maybe July if a park is available. Suggesting that this be combined with Field Day; club is funding but lots of help will be needed to pull it off.

7. Board member and Public Comments

There were no comments from board members.

8. Adjournment - Action

- A. Next Meeting: May 18th, 2022. Location Chin Chin plus Zoom
- B. Adjourned at 18:55.